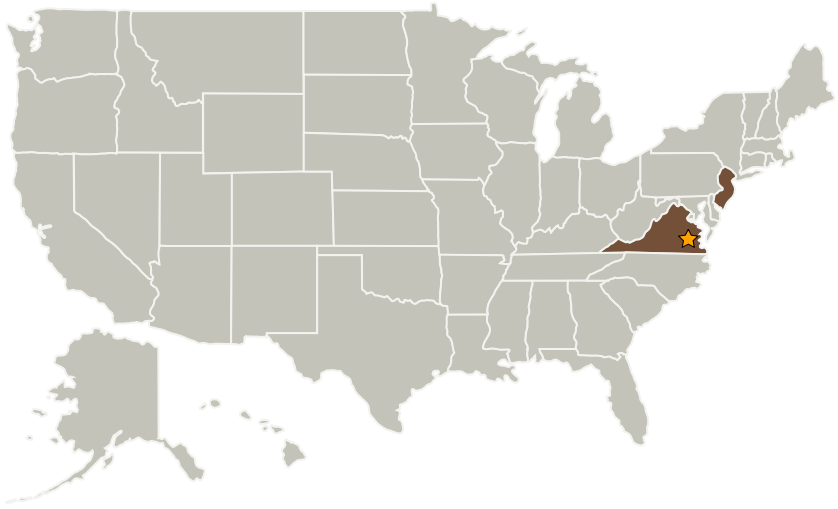
Advanced On Board Inert Gas Generation System (OBBIGS), Phase II

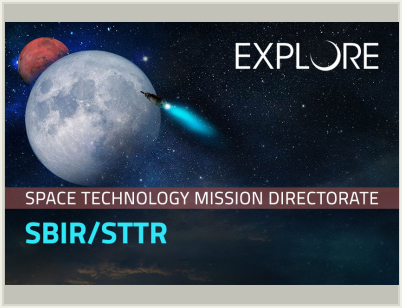
Completed Technology Project (2006 - 2008)

Project Introduction

Valcor Engineering Corporation proposes to develop an advanced On Board Inert Gas Generation System, OBIGGS, for aircraft fuel tank inerting to prevent hazardous in-flight conditions and to mitigate their effect when they do occur. Aircraft fires represent a small number of actual accident causes, but the number of fatalities due to in-flight, post-crash, and on-ground fires is large. The novel OBIGGS system will inert aircraft fuel tanks with nitrogen generated by a hollow fiber membrane module. The system will provide a cost effective method for fuel tank inerting, will be robust and resistant to chemical contamination. An OBIGGS system that is based on nitrogen generation is environmentally friendly and does not require hazardous chemicals for fire suppression. In addition to improving aircraft safety by mitigating hazardous in-flight and on the ground conditions the OBIGGS systems will also contribute to aircraft security and will mitigate aircraft damage from hostile attacks.

Primary U.S. Work Locations and Key Partners





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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Langley Research Center (LaRC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★Langley Research Center(LaRC)	Lead Organization	NASA Center	Hampton, Virginia
Valcor Engineering Corporation	Supporting Organization	Industry	SPRINGFIELD, New Jersey

Primary U.S. Work Locations	
New Jersey	Virginia

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX01 Propulsion Systems
  - TX01.3 Aero Propulsion
    - TX01.3.11 Engine Icing